Roland A. Fuller
(248) 944-6518

DAIMLERCHRYSLER

DaimlerChrysler
Intellectual Capital Company LLC.

Fax

To:	Examiner Vanel Frenel	**From:**	Roland A. Fuller, Reg. 31,160
Fax:	(571) 273-8300	**Pages:**	20 + cover
Phone:	(571) 272-6769	**Date:**	March 8, 2007

Group Art Unit: 3626

Re: Application No. 09/800,697

See the attached Appeal Brief

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (571) 273-8300) on March 8, 2007.

Susan J. Sidwell Susan J. Sidwell

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:	09/800,697
Filing Date:	March 7, 2001
Applicant:	McIntosh, et al.
Group Art Unit:	3626
Examiner:	V. Frenel
Title:	COMPUTER-IMPLEMENTED VEHICLE REPAIR CLAIMS RULES GENERATOR SYSTEM

Attorney Docket: 705445US1

CERTIFICATE OF FACSIMLE TRANSMISSION (37 CFR 1.8)

Date of transmission: 3/8/07. **I hereby certify that this Appeal Brief is being facsimile transmitted to the United States Patent and Trademark Office at fax number 571-273-8300 on the date indicated above.**

Susan J. Sidwell
NAME OF PERSON MAILING PAPER

Susan J. Sidwell
SIGNATURE

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Sir:

Further to the Notice of Appeal (reinstated) filed January 16, 2007, applicants submit the following Appeal Brief. Applicants previously submitted the $500 fee for the appeal brief with its appeal brief submitted on July 25, 2006. Accordingly, Applicants believe that no additional charges are required. However, the Commissioner is authorized to charge any additional fees required to Deposit Account No. 03-1800.

RECEIVED
CENTRAL FAX CENTER
MAR 08 2007

TABLE OF CONTENTS

I. REAL PARTY IN INTEREST

The real party in interest is DaimlerChrysler Corporation, having a place of business at 800 Chrysler Drive East, Auburn Hills, Michigan 48326 (hereinafter "DCC"). An assignment was recorded in the U.S. Patent and Trademark Office on June 11, 2001 at Reel/Frame: 011652/0325.

II RELATED APPEALS AND INTERFERENCES

An appeal is pending in USSN 09/801,298 for a Computer Implemented Vehicle Repair Claims Processing System. There are no other appeals or interferences related to the present appeal.

III. STATUS OF CLAIMS

Claims 1 – 20 are pending in this application. Claims 1 – 20 stand rejected in the final Office Action mailed March 3, 2006. The claims on appeal are set forth in the Claims Appendix.

IV. STATUS OF AMENDMENTS

There have been no amendments submitted subsequent to the final rejection.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

Applicants' invention as claimed in independent claims 1 and 11 is generally directed to a computer-implemented warranty knowledge base construction system (claim 1) and method (claim 11). With reference to the specification, independent claim 1 requires:

A computer-implemented warranty knowledge base construction system, comprising:

a user interface [GUI 104, Specification p. 7, lines 5 – 7] for receiving a first rule related to vehicle repair claim processing;

a rules syntax data store that stores syntax rules for constructing repair claim-related rules [Specification p. 2, lines 20 - 21; consistency checking software of the Aion system, Specification p. 8, lines 1 - 5];

a knowledge base generator module connected to the user interface and to the rules syntax data store for determining whether the first rule is in an acceptable syntax based upon the stored syntax rules [Specification p. 2, line 21 – p. 3, line 1; knowledge base generator software module 108, Specification p. 8, lines 2 – 5];

wherein the first rule is used in a knowledge base system to process repair claims [Specification p. 3, lines 1 – 2; knowledge base expert system 34, Specification p. 3, line 20 to p. 4, line 3]

With reference to the specification, independent claim 11 requires:

A computer-implemented warranty knowledge base construction method, comprising the steps of:

receiving with a computer networked system a first rule related to vehicle repair claim processing [Specification p. 7, lines 5 – 7];

storing syntax rules in the computer networked system for constructing repair claim-related rules [Specification p. 2, lines 20 – 21; Specification p. 8, lines 1 – 5];

determining with the computer networked system whether the first rule is in an acceptable syntax based upon the stored syntax rules [Specification, p. 2, lines 20 – 21, Specification p. 8, lines 1 – 5]; and

wherein the first rule is used by the computer networked system in a knowledge base method to process repair claims [Specification p. 3, lines 1 -2; Specification p. 3, line 20 to p. 4, line 3]

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issues in this appeal are:

Whether the Examiner erred in rejecting claims 1 – 20 under 35 U.S.C. § 103(a) as being unpatentable over Abdel-Malek et al. (U.S. Pat. No. 6,959,235) in view of Sampath et al. (U.S. Pat. No. 6,892,317)

RECEIVED
CENTRAL FAX CENTER
MAR 0 8 2007

VII. ARGUMENT

The Examiner erred in rejecting claims 1 – 20 under 35 U.S.C. § 103(a).

Applicants submit that the Examiner erred in rejecting claims 1 – 20 under 35 U.S.C. § 103(a) as being unpatentable over Abdel-Malek et al. (U.S. Pat. No. 6,959,235) ("Abdel-Malek") in view of Sampath et al. (U.S. Pat. No. 6,892,317) ("Sampath"). Claims 1 and 11 are the independent claims. In rejecting claim 1, the Examiner takes the position:

> As per claim 1, Abdel-Malek discloses a computer-implemented warranty knowledge base construction system, comprising: a user interface for receiving a first rule related repair claim processing (See Abdel-Malek, Col. 20, lines 55 – 67); wherein the first rule is used in a knowledge base system to process repair claims (See Abdel-Malek, Fig. 2, Col. 10, lines 41 – 67).
>
> Abdel-Malek does not explicitly disclose a rules syntax data store that stores syntax rules for constructing repair claim-related rules; a knowledge bas generator module connected to the user interface and to the rules syntax data store for determining whether the first rule is in an acceptable syntax based upon the stored syntax rules.
>
> However, these features are known in the art, as evidenced by Sampath. In particular, Sampath teaches a rules syntax data stores that stores syntax rules for constructing repair claim-related rules (See Sampath, Col. 10, lines 7 – 46); a knowledge base generator module connected to the user interface and to the rules syntax data store for determining whether the first rule is in an acceptable syntax based upon the stored syntax rules (See Sampath, Fig. 1; Col. 3, lines 62 – 67 to Col. 4, line 50; Col. 12, lines 53 – 67).

The Examiner takes a similar position in rejecting claim 11.

Claim 1 is directed to a computer-implemented warranty knowledge base construction system. Claim 11 is directed to a computer-implemented warranty knowledge base construction method. Contrary to the Examiner's position, applicants submit that neither Abdel-Malek nor Sampath disclose a warranty knowledge base construction system or method. Rather, Abdel-Malek is directed to a diagnosis repair recommendations system and Sampath is directed to real time-failure prediction and diagnoses of electronic systems operating in a network environment. In other words, Abdel-Malek and Sampath are each directed to diagnosing faults and determining what repair needs to be made, not to construction of a warranty knowledge base. As such, Abdel-Malek lacks a number of the limitations of claims 1 and 11 as does Sampath.

Claim 1 requires that the computer-implemented warranty knowledge base construction system have a user interface for receiving a first rule related to vehicle repair claim processing, a rules syntax data sores syntax rules for constructing repair claim-related rules, a knowledge base generator module connected to the user interface and to the rules syntax data store for determining whether the first rule is in an acceptable syntax based upon the stored syntax rules, wherein the first rule is used in a knowledge base system to process repair claims. Claim 11 contains similar limitations, but in the context of a method.

The Examiner cites Abdel-Malek, col. 20, lines 55 – 67 as disclosing a computer-implemented warranty knowledge base construction system having a user interface for receiving a first rule related repair claim processing and Abdel-Malek, fig. 2, col. 10, lines 41 – 67 as disclosing that the first rule is used in a knowledge base system to process repair claims. But what col. 20, lines 55 – 67 of Abdel-Malek address is recommendation authoring subsystem 182 and technical documentation system 186. Abdel-Malek describes recommendation authoring subsystem 182 and technical documentation system 186 as follows:

> The recommendation authoring subsystem 182 provides the functionality for authoring general repair recommendations and instantiating specific recommendations for a locomotive. The recommendation authoring system 182 provides the following functions: defining the steps involved in a repair, specifying the relevant technical documentation to accompany the repair recommendation and specifying the data that needs to be collected by the technician to execute the repair. .... The key feature of the recommendation authoring subsystem 182 is the creation of repair-specific process steps (including all relevant technical documentation necessary to execute each step) for the technician. Using all the general diagnosis, repair and technical information available, the recommendation authoring subsystem 182 selects only that information needed for a specific repair as associated with a specific locomotive based on a unique locomotive designator, such as the road number, and presents this to the technician. With repair-specific information and back-up technical documentation readily available, the technician can more easily and efficiently execute the repair process. [Abdel-Malek, col. 14, line 64 to col. 15, line 27]

> The technical documentation subsystem 186 maintains the technical documentation repository and supports the selection and retrieval of technical documentation into a repair specific set of relevant documents by the repair expert. In one embodiment, the technical documentation is available in a web-based format. The technical documentation subsystem 186 supports the retrieval of individual pages or sections from technical documents, rather than retrieval of the entire document. The technical documentation is also indexed. These indexes provide quick identification of document subsets. For example, the indices can support identification of all documentation pages related to a specific part number, a specific part name, or a repair process name. All relevant technical documents are stored in the technical

> documentation subsystem 186. The stored documents are: parts catalogs, wiring and parts schematics, maintenance manuals, fault analysis pages, back shop manuals, field modifications instructions, training instructions, part identification animations, assembly animations, etc. The documentation includes both text, graphics, and visualization based documents. Thumbnail style summaries may be included with each document. [Abdel-Malek, col. 21, lines 23 – 45]

Applicants submit that neither recommendation authoring system 182 nor technical documentation subsystem 186 deal with rules related to repair claim processing. Rather, they deal with storing technical documentation and retrieving technical documentation that is pertinent to a particular repair. Applicants submit that Abdel-Malek thus fails to disclose a user interface for receiving a first rule related to vehicle repair claim processing as required by claim 1 or receiving with a computer networked system a first rule related to vehicle repair claim processing as required by claim 11.

Similarly, col. 10, lines 41 – 67 do not disclose using a first rule in a knowledge base system to process repair claims. Col. 10, lines 48 – 53 of Abdul-Malek makes this clear.

> A warranty information module 62 allows access to applicable locomotive warranty documents. By entering a locomotive identification number, personnel can view all warranty information about that locomotive and its components. Warranty claims can also be submitted and tracked via the warranty information module.

Abdel-Malek's system is thus a submitter of a warranty claim to some type of warranty claims processor, not the processor of the warranty claims. As such, Abdel-Malek's system does not deal with rules related to vehicle repair claims processing because it does not process vehicle repair claims, it just allows warranty claims to be submitted, such as to a warranty claims processor. Applicants submit that Abdel-Malek thus fails to disclose using the first rule related to vehicle repair in a knowledge base to process repair claims, as required by claims 1 and 11.

Acknowledging that Abdel-Malek does not explicitly disclose rules syntax data store that stores syntax rules for constructing repair claim-related rules and a knowledge base generator module connected to the user interface and to the rules syntax data store for determining whether the first rule is in an acceptable syntax based upon the stored syntax rules, the Examiner takes the position that these features are disclosed by Sampath, citing Fig. 1, ,Col. 3, line 62 to col. 4, line 50 and col. 12, lines 53 – 67. But these sections of Sampath discuss a diagnostic system, not a warranty knowledge base construction system or method. And these sections of Sampath do not disclose a rules syntax data store for storing syntax rules of any type, let alone repair claim-related rules,. Nor do they disclose a knowledge base generator that determines whether the first rule is in an acceptable syntax

based upon the stored syntax rules. Applicants thus submit that Sampath fails to disclose these limitations of claims 1 and 11.

For these reasons, applicants submit that claims 1 and 11 are allowable over Abdel-Malek in view of Sampath.

Dependent claim 2 is allowable as depending from claim 1 and dependent claim 12 is allowable as depending from claim 11. Dependent claim 2 further requires an integrity rules module connected to the knowledge base generator module in order to determine whether the first rule is consistent with respect to at least one of the warranty-related expert rules that is stored in the knowledge base. Dependent claim 12 further requires, *inter alia*, determining with the computer networked system whether the first rule is consistent with respect to at least one of the repair claim-related expert rules that is stored in the knowledge base. As discussed above, neither Abdel-Malek or Sampath address constructing rules, and in particular, do not address checking a newly received rule against existing warranty rules for consistency. Applicants submit that dependent claims 2 and 12 are allowable over Abdel-Malek in view of Sampath for this reason also.

Dependent claim 3 is allowable as depending indirectly from claim 1 and dependent claim 13 is allowable as depending indirectly from claim 11. Dependent claim 3 further requires a testing module for testing the knowledge base with testing scenarios. Dependent claim 13 further requires testing the knowledge base with testing scenarios. In an illustrative embodiment discussed in the application, forced test software module 116 provides warranty case test scenarios to test the new rules against the existing rules. Messages regarding any inconsistencies found during this testing are provided to the rules administrator 100 explaining the reasons behind the inconsistencies so that the rules administrator may provide corrective action. If no inconsistencies are found, the approval process software module 120 provides a structured environment for personnel other than the rules administrator to approve the knowledge base with the new rules. [Specification, p. 8, line 20 to p. 9, line 3] For the reasons discussed above, neither Abdel-Malek or Sampath address constructing rules. They thus also do not address testing the knowledge base with testing scenarios to determine whether there are any inconsistencies between a new rule and existing rules. Applicants submit that dependent claims 3 and 13 are allowable over Abdel-Malek in view of Sampath for this reason also.

Claims 3 – 10 depend directly or indirectly from claim 1, and claims 14 – 20 depend

directly or indirectly from claim 11, and are allowable for at least this reason.

Conclusion

In conclusion, for the reasons discussed above, Applicants submit that the rejections of claims 1 – 20 under 35 U.S.C. § 103(a) are in error. Applicants respectfully request reversal of these rejections.

Respectfully submitted,

R. A. Fuller III

Roland A. Fuller III
Reg. No. 31,160
Harness, Dickey & Pierce P.L.C.

Dated: March 8, 2007

RALPH E. SMITH, JR.
DAIMLERCHRYSLER INTELLECTUAL CAPITAL COMPANY, LLC
DAIMLERCHRYSLER TECHNOLOGY CENTER
800 CHRYSLER DRIVE, CIMS 483-02-19
AUBURN HILLS, MI 48326-2757
248-944-6519

VIII. CLAIMS APPENDIX

1. A computer-implemented warranty knowledge base construction system, comprising:

a user interface for receiving a first rule related to vehicle repair claim processing;

a rules syntax data store that stores syntax rules for constructing repair claim-related rules;

a knowledge base generator module connected to the user interface and to the rules syntax data store for determining whether the first rule is in an acceptable syntax based upon the stored syntax rules;

wherein the first rule is used in a knowledge base system to process repair claims.

2. The system of claim 1 wherein a knowledge base stores a plurality of repair claim-related expert rules to evaluate a repair claim, said system further comprising:

an integrity rules module connected to the knowledge base generator module in order to determine whether the first rule is consistent with respect to at least one of the warranty-related expert rules that is stored in the knowledge base.

3. The system of claim 2 wherein the first rule is incorporated into the knowledge base, said system further comprising:

a testing module for testing the knowledge base with testing scenarios.

4. The system of claim 2 wherein the first rule is incorporated into the knowledge base, said system further comprising:

a testing module for performing regression testing of the knowledge base.

5. The system of claim 2 further comprising:

a reverse engineer module for generating a specification for the knowledge base.

6. The system of claim 5 wherein the specification for the knowledge base includes warranty methods and warranty business rules.

7. The system of claim 2 wherein the first rule contains a high level computer expression, said knowledge base generator evaluating the high level expression as to whether the high level expression of the first rule is in an acceptable syntax based upon the stored syntax rules.

8. The system of claim 7 wherein the knowledge base generator generates a lower level representation of the first rule if the first rule is in an acceptable syntax.

9. The system of claim 8 wherein the high level computer expression of the first rule is an English phrase, wherein the lower level representation of the first rule is at least one line of programming code.

10. The system of claim 9 wherein the programming code is C++ programming code.

11. A computer-implemented warranty knowledge base construction method, comprising the steps of:

receiving with a computer networked system a first rule related to vehicle repair claim processing;

storing syntax rules in the computer networked system for constructing repair claim-related rules;

determining with the computer networked system whether the first rule is in an acceptable syntax based upon the stored syntax rules; and

wherein the first rule is used by the computer networked system in a knowledge base method to process repair claims.

12. The method of claim 11 including evaluating a repair claim with the computer networked system using a plurality of repair claim-related expert rules stored in a knowledge base of the computer networked system and

determining with the computer networked system whether the first rule is consistent with respect to at least one of the repair claim-related expert rules that is stored in the

knowledge base.

13. The method of claim 12 including incorporating with the computer networked system the first rule into the knowledge base and

testing the knowledge base with testing scenarios.

14. The method of claim 12 including incorporating with the computer networked system the first rule into the knowledge base, and

performing regression testing of the knowledge base.

15. The method of claim 12 further comprising the steps of:

using a reverse engineer module for generating a specification for the knowledge base.

16. The method of claim 15 wherein the specification for the knowledge base includes warranty methods and warranty business rules.

17. The method of claim 12 wherein the first rule contains a high level computer expression, said method further comprising the step of:

evaluating the high level expression as to whether the high level expression of the first rule is in an acceptable syntax based upon the stored syntax rules.

18. The method of claim 17 further comprising the step of:

generating a lower level representation of the first rule if the first rule is in an acceptable syntax.

19. The method of claim 18 wherein the high level computer expression of the first rule is an English phrase, wherein the lower level representation of the first rule is at least one line of programming code.

20. The method of claim 19 wherein the programming code is C++

programming code.

IX. EVIDENCE APPENDIX

None

X. RELATED PROCEEDINGS APPENDIX

None